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Description of the female of *Ethmia cribravia* Wang and Li 2004 (Lepidoptera, Elachistidae, Ethmiinae)

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Abstract. The previously unknown female of *Ethmia cribravia* Wang and Li, a species known from Yunnan, China, is described and illustrated with colour photographs of the habitus, as well as images of genitalia mounted on slides. The species is sexually dimorphic, with the male having prominent androconial scales on the hindwing.

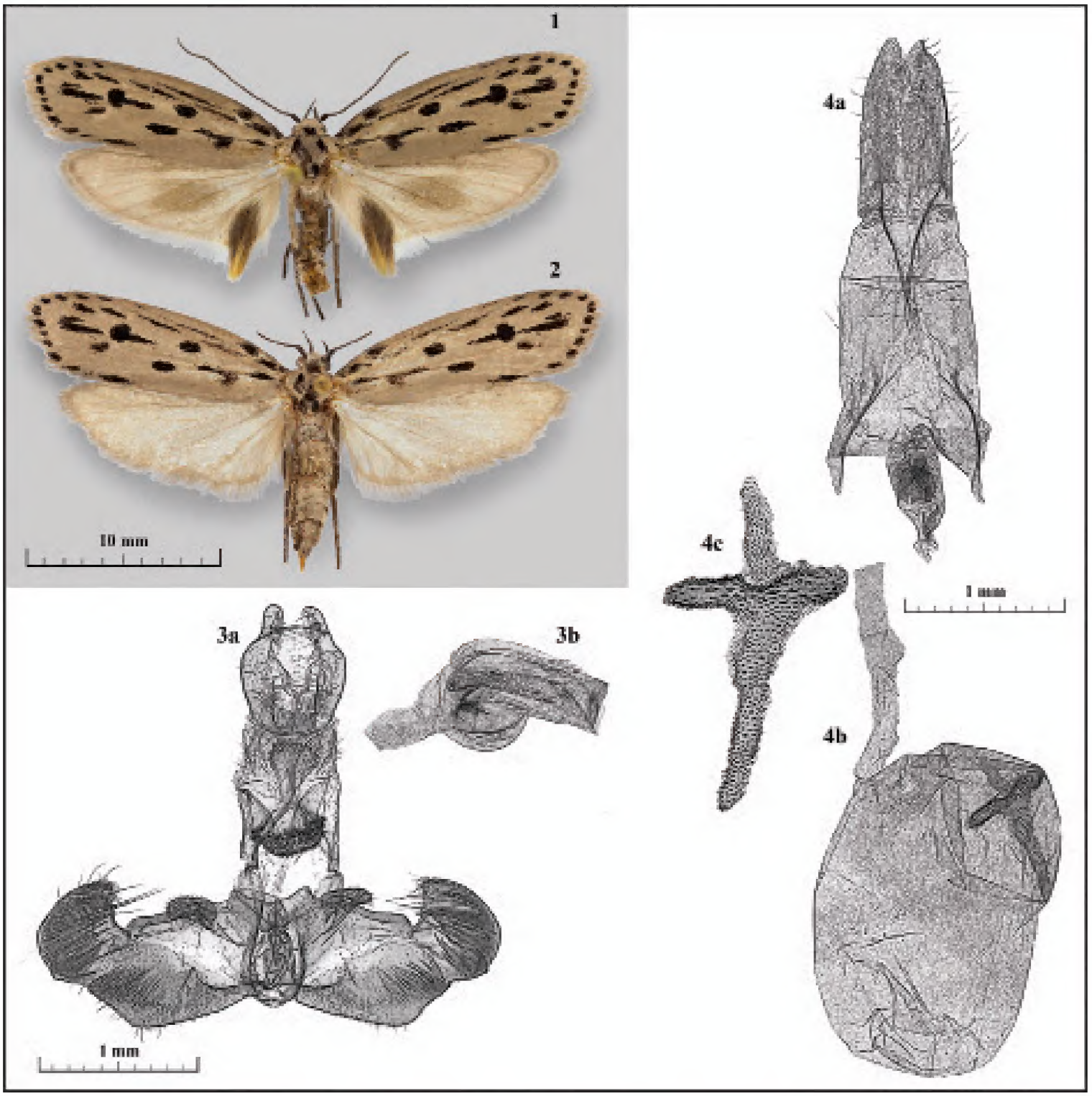
Резюме. В статье приводится описание ране неизвестной самки *Ethmia cribravia*. Впервые даны цветные иллюстрации бабочек, так же даны черно-белые фотографии генитальных структур самца и самки.

Introduction

Ethmia cribravia was described by Wang and Li (2004) ten years ago, based on three male specimens from Yunnan Province of China. In the collection of the Hungarian Natural History Museum (Budapest) we found two male and two female specimens of this little-known species. *E. cribravia* is peculiar as it displays remarkable sexual dimorphism. The male has a tuft of long, piliform androconial scales on the anal margin of the hindwing (Fig. 1). A similar degree of sexual dimorphism is known from only one other *Ethmia* species – the male of the African species *Ethmia melanocrates* Meyrick, 1923 has similar androconial scales on the anal margin of the hindwing (Mey & Shovkoon 2014: fig. 14).

Abbreviations

HNHM Hungarian Natural History Museum, Budapest.



Figures 1–4. *Ethmia cribravia*. **1.** Male, China, Yunnan Diqing Tibetan (HNHM). **2.** Female, China, Yunnan Diqing Tibetan (HNHM). **3.** Male genitalia: **a** general view and **b** phallus; Shovkoon praeparavit, prep. № 219 (HNHM). **4.** Female genitalia: **a** general view, **b** bursae, **c** signum; Shovkoon praeparavit, prep. № 220 (HNHM).

Ethmia cribravia Wang and Li 2004

Figs 1–4

Material. 2♂, 2♀ China, Yunnan Diqing Tibetan Auf. Pref. Tiger Leaping Gotge, SE Slope at Sean's Guesthouse, 2000-2500 m N 27°16.113', E 100°10.233' 9-12.vi.2008, leg. B. Benedek. (HNHM).

Description of female. (Fig. 2) Length of forewing 29.5–30.5 mm. In general coloration and pattern of forewing essentially as male. Hindwing lacking the dark field in the centre and piliform androconial scales on anal margin of hindwing, typical of male.

Female genitalia (Fig. 4). Papillae anales elongated, setose. Eighth tergite medially with membranous incision. Posterior apophyses slender, as long as papillae anales; anterior apophyses wedge-shaped, distally pointed (Fig. 4a). Posterior part of antrum sclerotized with armed sclerotized thorns. Ductus bursae as long as abdomen, with 5–7 coils, bursa copulatrix spherical (Fig. 4b). Signum very large, cruciform, evenly covered with small teeth (Fig. 4c).

Distribution. The collecting site of the specimens examined by us is only 20 kilometers north-east of the type locality, both sites in Yunnan Province of China.

Taxonomic notes. The moth habitus and the structure of the male (Fig. 3) and female genitalia (Fig. 4) suggest a close relationship with *E. dehiscens* Meyrick, 1924, and the species is therefore placed in the *dehiscens* species-group *sensu* Sattler (1967).

The similarity in the appearance of the androconial scales of *E. cribravia* and the African species *E. melanocrates* is puzzling. The two species do not belong in the same species-group *sensu* Sattler (1967). Based on the morphology of the genitalia of *E. melanocrates* (Mey & Shovkoon 2014: figs 17, 18), this species belongs to its own independent species-group, the members of which are known only from Kenya, Namibia, and South Africa and are not present in the Palaearctic region.

Additionally, these two species differ in their external appearance. The costal half of the forewing of *E. melanocrates* is suffused with yellow scales, and the basal half with a complex pattern formed by dark and light fields; tiny black marginal dots are present; the cilia are pale grey, with black scales at the tip of the forewing; the hindwing is yellow with yellow cilia; and the abdomen and thorax are grey-yellow (Mey & Shovkoon 2014: figs 14, 15).

It is very interesting that, in spite of such differences in morphology and distribution, the androconial scales of these two species are similar to such an extent. In both species the piliform androconial scales are located on the anal margin of the hindwing starting from the An_1 vein and they are as long as the width of the hindwing.

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References

Mey W, Shovkoon DF (in press). Synopsis of the Ethmiinae (Lepidoptera, Gelechioidea: Depressariidae) of the Afrotropical Region and descriptions of new species. Tijdschrift voor Entomologie 157.

Sattler K (1967) Ethmiidae. In Amsel HG, Gregor F, Reisser H (Eds). Microlepidoptera Palaearctica 2 (1+2). – Georg Fromme, Wien, xviii + 185 pp., 106 pls.

Wang S, Li H (2004) Two new species of *Ethmia* Hübner from China Lepidoptera: Elachistidae: Ethmiinae. Entomological News 115 (3): 135–138.